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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hikaru Izawa

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1866

7590

06/30/2004

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EXAMINER

LABAZE, EDWYN

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/890,924

Applicant(s)

IZAWA ET AL.

Examiner

EDWYN LABAZE

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6112003</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Receipt is acknowledged of IDS filed on 6/11/2003.
2. Claims 1-11 are presented for examination.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-2, 4-5, and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Koltai et al. (U.S. 6,104,812).

Re claim 1: Koltai et al. discloses anti-counterfeiting method and apparatus using digital screening, which includes a valuable paper [herein disclosed as a media such as tickets, passports, licenses, currency, postal media etc., with a hidden secondary image visible to a viewer only when a decoder is used (col.3, lines 55-60)] comprising a characteristic detectable by a sensor means of a bill validator which can discriminate

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authenticity of a bill inserted into the validator; the bill having at least a distinctive portion detectable by the sensor means; the paper being inserted into the validator to detect the characteristic pattern of the paper by the sensor means for discrimination of the paper by the validator. Koltai et al. is silent with regards to the process of inserting the valuable paper [disclosed as a check, banknote, currency, and the like (see col.19, lines 15+; col.20, lines 1+); but discloses means of electronically decoding the combined output image using an electronic decoder having electronic recognition for reading optical codes (col.19, lines 1+), which to one skilled in the art an electronic decoder {such as U.S. 6,179,110 to Ohkawa et al. which is a bank note discriminating apparatus and bank note drawing means detecting method} for reading would include the step of inserting the check/banknote into the reader for decoding a hidden/concealed code for authentication of the valuable document.

Re claim 2: Koltai et al. teaches a valuable document, wherein the paper has its substantially same width as that of the bill [Koltai et al. teaches that the document could be either a check, currency/bill, banknotes and more (see col.19, lines 15+; col.20, lines 1+). Therefore the width of the document would be the same width as that of a currency]; the characteristic pattern of the paper is formed on the substantially same position in width as that of the distinctive portion in the bill.

Re claim 4: Koltai et al. discloses a valuable document, wherein the characteristic pattern printed on the valuable paper is invisible (col.6, lines 60+).

Re claim 5: Koltai et al. teaches a valuable document, wherein the characteristic pattern is printed with ink being one or more selected ink from ink materials that produces optical change (col.2, lines 8-20).

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Re claims 10-11: Koltai et al. discloses a valuable paper/document, wherein the characteristic pattern indicates at least one of country code [which could be embedded in a passport/visa as security feature to authenticate the owner and originality of the document], name of gaming or gambling accommodation [which could be a ticket or a special event ticket], value level, starting information and stopping information, testing mode and version data (col.19, lines 15+; col.20, lines 1+).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al. (U.S. 6,104,812) in view of Ohkawa et al. (U.S. 6,179,110).

The teachings of Koltai et al. have been discussed above.

Koltai et al. fails to discuss a conveyor means for alternatively transporting the paper/document or bill along a passageway in response to an input signal from the inlet sensor, a validator control circuit for validating authenticity of the paper, and wherein the sensor means detects an optically, magnetically or electrically portion of the transported bill.

Ohkawa et al. discloses bank note discriminating apparatus and bank note drawing means detecting method, which includes a bill validator 1 [as shown in fig. # 1] comprising of a conveyor means 6 for alternatively transporting the paper/document or

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bill along a passageway 3 (col.5, lines 35+) in response to an input signal from the inlet sensor 33 (col.6, lines 27+), a validator control circuit 50 for validating authenticity of the paper (col.6, lines 7+), and wherein the sensor means detects an optically [through the optical detective sensor 34], magnetically [through the magnetic detective sensor 35] or electrically portion of the transported bill (col.6, lines 27+).

In view of Ohkawa et al.'s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ into the teachings of Koltai et al. a bill validator with conveying means, an input sensor, a validation control circuit to authenticate the transported bill. Furthermore, such modification would provide a means to discriminate, authenticate and detect a faked/falsified valuable document/bill, and decode the hidden/invisible security information/code through optical, magnetic and/or electrical reading means. Moreover, such modification would have been an obvious extension as taught by Koltai et al.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al. (U.S. 6,104,812) in view of Allen (U.S. 4,480,177).

The teachings of Koltai et al. have been discussed above.

Koltai et al. fails to teach that the invisible pattern is covered with a mask coating on the valuable paper.

Allen discloses currency identification method, which includes means of treating paper money overcoated with a normally invisible coating 20, which would be visible under the ultra violet/UV light (col.5, lines 53+).

In view of Allen's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ into the teachings of Koltai

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et al. a mask coating to hide the characteristic pattern. Furthermore, such method is well known in the art and used in the banking industry to conceal a security or pass-code, and wherein the authenticity and validation of the document is nullified without the detection of the coated layer by the bill validator or in some instance the ultra violet/UV light. Moreover, such modification would have been an obvious extension as taught Koltai et al., therefore an obvious expedient.

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al. (U.S. 6,104,812) in view of Tsuji et al. (U.S. 4,357,164).

The teachings of Koltai et al. have been discussed above. Koltai et al. further teaches

Koltai et al. fails to teach an ink including one or mixture of oil, wax, resin, maleic rosin, and metallic ingredient selected from iron (Fe), nickel (Ni), aluminum (Al), barium (Ba), lead (Pb), and titan (Ti).

Tsuji et al. discloses ink composition for waterless lithography and methods of printing therefrom, which contains phenolic resin, drying oil, maleic resin, paraffin wax, and driers such as a metal soap of lead (col.4, lines 37-68).

In view of Tsuji et al.'s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ into the teachings of Koltai et al. an ink/pigment, which includes one or mixture of oil, wax, resin, maleic rosin, metallic ingredient selected from iron (Fe), nickel (Ni), aluminum (Al), barium (Ba), lead (Pb), and titan (Ti). Furthermore, such modification with the use of a maleic rosin/resin serves as a base or matrix to hold the ink together and to the underlying substrate, wherein upon drying the resins become water insoluble. Moreover, such

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modification would have been an obvious extension as taught Koltai et al., therefore an obvious expedient.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Martin et al. (U.S. 4,312,436) teaches validator-controlled apparatus.

Lee (U.S. 4,973,851) discloses currency validator.

Batalianets et al. (U.S. 5,495,929) teaches apparatus and method for validation of bank notes and other valuable documents.

Omatu et al. (U.S. 5,729,623) discloses pattern recognition apparatus and method of optimizing mask for pattern recognition according to genetic algorithm.

Holste et al. (U.S. 5,756,985) discloses cash box system for bill validator.

Walsh (U.S. 5,806,649) teaches paper currency validator.

Uemizo et al. (U.S. 6,105,747) discloses bill validator with a shutter unit.

Ohya et al. (U.S. 6,125,195) teaches bill validator of master-slave type and method for download of validator.

Hutchinson (U.S. 6,292,579) teaches document validator having an inductive sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (571) 272-2395. The examiner can normally be reached on 7:30 AM - 4:00 PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

el  
Edwyn Labaze  
Patent Examiner  
Art Unit 2876  
June 18, 2004

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

**THIEN M. LE  
PRIMARY EXAMINER**